

What is claimed is:

1. A method comprising the steps of:

providing a disk surface that is divided into a plurality of zones, the disk surface having a head associated therewith;

measuring amplitudes of a plurality of AGC fields in a first of said plurality of zones;

5 storing a calibrated value, which is based upon the measured amplitudes, onto the disk surface for use in determining whether a high fly write condition exists in the first of said plurality of zones.

2. The method of claim 1 including the steps of:

receiving a write command to write a block of data in the first of said plurality of zones;

5 measuring an amplitude of an AGC field in the first of said plurality of zones in response to the write command; and,

comparing the measured amplitude to the calibrated value.

3. The method of claim 2 including the steps of:

writing the block of data onto the disk surface in a data sector associated with the AGC field in the first of said plurality of zones; and,

5 determining whether the measured amplitude is within a predetermined tolerance in comparison to the calibrated value.

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4. The method of claim 3 including the step of:

re-measuring the amplitude of the AGC field in the first of said plurality of zones when the measured amplitude is outside of the predetermined tolerance in comparison to the calibrated value.

5. The method of claim 4 including the steps of:

re-writing the block of data onto the disk surface in the data sector associated with the AGC field in the first of said plurality of zones; and,

determining whether the re-measured amplitude is within the predetermined tolerance in comparison to the calibrated value.

6. The method of claim 5 including the step of:

determining whether a high fly write flag has been set if the re-measured amplitude is outside of the predetermined tolerance in comparison to the calibrated value.

7. The method of claim 6 including the step of:

performing a burnishing process by allowing the head to contact the disk surface, if the high fly write flag has not been set.

8. The method of claim 7 including the step of:

setting a high fly write flag.

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9. The method of claim 6 including the step of:

writing the block of data to a different data sector on the disk surface if the high fly write flag has been set.
10. The method of claim 6, including the steps of:

providing a second disk surface; and,

writing the block of data to a data sector on the second disk surface.
11. The method of claim 1, wherein said calibrated value is an average of the measured amplitudes.
12. The method of claim 1, wherein said calibrated values is stored in a utility sector on the disk surface.
13. The method of claim 1, wherein the steps of claim 1 are performed during a self-test procedure.
14. The method of claim 1, wherein the first of said plurality of zones is a single track.

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20. The method of claim 19 including the steps of:

receiving a write command to write a block of data in the first of said plurality of zones;

measuring an amplitude of an AGC field in the first of said plurality of zones in
5 response to the write command; and,
comparing the measured amplitude to the running average.

21. The method of claim 20 including the steps of:

writing the block of data onto the disk surface in a data sector associated with the AGC field in the first of said plurality of zones; and,

determining whether the measured amplitude is within a predetermined tolerance in
5 comparison to the running average.

22. The method of claim 21 including the step of:

re-measuring the amplitude of the AGC field in the first of said plurality of zones when the measured amplitude is outside of the predetermined tolerance in comparison to the running average.

23. The method of claim 22 including the steps of:

re-writing the block of data onto the disk surface in the data sector associated with the AGC field in the first of said plurality of zones; and,

29. The method of claim 19, wherein the first of said plurality of zones is a single track.

30. The method of claim 21 including the step of:
performing a burnishing process by allowing the head to contact the disk surface when the measured amplitude is outside of the predetermined tolerance in comparison to the running average.

31. The method of claim 21 including the step of:
verifying that the block of data written onto the disk surface was properly written when the measured amplitude is outside of the predetermined tolerance in comparison to the running average.

32. The method of claim 31 including the step of:
performing a burnishing process by allowing the head to contact the disk surface when the block of data written onto the disk surface could not be verified as being properly written.

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33. A disk drive comprising:

a disk surface that is divided into a plurality of zones, the disk surface having a plurality of AGC fields stored thereon;

5 a head associated with the disk surface, wherein said head is used to measure amplitudes of a plurality of AGC fields in a first of said plurality of zones; and,

circuitry for calculating a calibrated value based upon the measured amplitudes, wherein the head stores the calibrated value onto the disk surface.

34. The disk drive of claim 33, wherein the head reads the calibrated value from the disk surface and stores the calibrated value in memory, wherein the head measures an amplitude of an AGC field in the first of said plurality of zones in response to a write command and wherein circuitry is used to compare the measured amplitude to the calibrated value.

35. The disk drive of claim 34, wherein the head writes a block of data onto the disk surface in a data sector associated with the AGC field in the first of said plurality of zones and wherein circuitry is used to determine whether the measured amplitude is within a predetermined tolerance in comparison to the calibrated value.

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36. A method for use in a disk drive having a disk surface divided into a plurality of zones, the method comprising the steps of:

measuring amplitudes of a plurality of AGC fields stored on the disk surface on a zone-by-zone basis; and,

storing, on the disk surface, calibrated values corresponding to each zone based upon the measured amplitudes.

37. The method of claim 36 including the steps of:

receiving a write command to write a block of data in a first of said plurality of zones;

measuring an amplitude of an AGC field in the first of said plurality of zones in response to the write command; and,

comparing the measured amplitude to a calibrated value corresponding with the first of the plurality of zones.

38. The method of claim 37 including the steps of:

writing the block of data onto the disk surface in a data sector associated with the AGC field in the first of said plurality of zones; and,

determining whether the measured amplitude is within a predetermined tolerance in comparison to the calibrated value corresponding with the first of the plurality of zones.

39. The method of claim 38 including the steps of:

receiving a write command to write a block of data in a second of said plurality of zones;

5 measuring an amplitude of an AGC field in the second of said plurality of zones in response to the write command; and,

comparing the measured amplitude of the AGC field in the second of said plurality of zones to a calibrated value corresponding with the second of the plurality of zones.

40. The method of claim 1, wherein the first of said plurality of zones is a single track and the second of said plurality of zones is a single track.

41. The method of claim 36, wherein said calibrated values corresponding to each zone are an average of the measured amplitudes corresponding to each zone.

42. The method of claim 36, wherein the calibrated values corresponding to each zone are used as initial values for running averages of amplitudes of AGC fields corresponding with each of said plurality of zones.

43. The method of claim 42, wherein the running averages corresponding with each of said plurality of zones are made up of a predetermined number of samples of amplitudes of AGC fields within their corresponding zones.

